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REMARKS

Claims 1-59 were pending in the present application prior to this amendment. Claims 16, 24-39, and 42-59 are being cancelled and claim 14 is being amended. Therefore, after entry of this amendment, claims 1-15, 17-23, and 40-41 will be pending.

I. REJECTION UNDER 35 U.S.C. §102**A. Claims 28-29, 31-39, 45-48**

The Examiner rejected claims 28-29, 31-39, 45-48 under 35 U.S.C. §102(a) as being allegedly anticipated by WO02/078211 A2 (hereinafter "Ling").

Claims 28-29, 31-39 and 45-48 have been cancelled and rejections with respect to those claims are now moot.

B. Claims 50-59

The Examiner rejected claims 50-59 under 35 U.S.C. §102(e) as being allegedly anticipated by 6,738,020 issued to Lindskog (hereinafter "020"). The rejection is respectfully traversed in its entirety.

Claims 50-59 have been cancelled and rejections with respect to those claims are now moot.

II. REJECTION UNDER 35 U.S.C. §103**A. Claims 1-5, 7-8, 11, and 13-23**

The Examiner rejected claims 1-5, 7-8, 11, and 13-23 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of U.S. Patent No. 6,452,981 issued to Raleigh.

Claim 1 recites, amongst other things, "processing a first transmission received via a first link to obtain at least one eigenvector usable for spatial processing for both data transmission received via the first link and data transmission sent via a second link." As admitted at page 11 of the Office Action, this recitation is not explicitly taught by Ling or Raleigh. In fact all that Raleigh is purported to teach is that "in systems employing TDD, the receive and transmit propagation environments may be the same." However, this does not indicate that a same at

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least one eigenvector may be used for spatial processing for both data transmission received via the first link and data transmission sent via a second link. More specifically, this recitation is not taught or disclosed in Raleigh, as such each and every recitation of claim 1 is not disclosed in the cited references. *See, MPEP 2143.03.* Therefore, for at least this reason, claim 1 is allowable over the cited references.

Additionally, Applicants submit that the purported redesign of Ling in view of Raleigh constitutes impermissible hindsight reconstruction of the claimed subject matter. There is no teaching, in the cited references, that the steering vectors used for transmission can be used for any other purpose or that any approach other than channel matrix calculation may be used by a receiver. Therefore, for at least this reason, claim 1 is allowable over the cited references.

Further, Applicants submit that there is no motivation for one of skill in the art to modify Ling or Raleigh in such a fashion. More specifically, there is no statement that use of a channel matrix based upon training symbols or pilots for the purposes of receiver spatial processing is a problem in any way, in the cited references. In fact, Raleigh discloses the use of pilot or training symbols as part of a transmission, essentially requiring the use of such approaches in bi-directional links. Therefore, for at least this reason, claim 1 is allowable over the cited references.

Claims 2-13 depend from claim 1, and are therefore allowable, for at least the same reasons as stated with respect to claim 1.

Moreover, claim 3 recites that "the first transmission is a steered pilot received on at least one eigenmode of a MIMO channel." Applicants submit that, as admitted in the Office Action at page 11, the cited references do not teach steered pilots. However, Applicants do not believe, as stated in the Office Action, that such steered pilots are well known. Therefore, Applicants respectfully request that documentary evidence be provided that prior to Applicant's invention such steered pilots were known per MPEP 2144.03. As such, Applicants submit that claim 3 is independently allowable over the cited references.

Moreover, claim 7 includes recitations similar to claim 3 and is therefore allowable, for at least, the same reasons as stated with respect to claim 3.

Claim 14 includes recitations similar to claim 1 and claim 3, and is therefore allowable, for at least, the same reasons as stated with respect to claims 1 and 3.

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Claims 15 and 17-18 depend from claim 14, and are therefore allowable, for at least the same reasons as stated with respect to claim 14.

Claim 19 includes recitations similar to claim 1, and is therefore allowable, for at least, the same reasons as stated with respect to claim 1.

Claims 20-23 depend from claim 19, and are therefore allowable, for at least the same reasons as stated with respect to claim 19.

B. Claim 12

The Examiner rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of Raleigh and further in view of Boros et al.

Claim 12 depends from claim 1, and is therefore allowable, for at least the same reasons as stated with respect to claim 1.

C. Claims 24-27

The Examiner rejected claims 24-27 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of Raleigh.

Claims 24-27 have been cancelled and rejections with respect to those claims are now moot.

D. Claims 30 and 33

The Examiner rejected claims 30 and 33 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of Raleigh.

Claims 30 and 33 have been cancelled and rejections with respect to those claims are now moot.

E. Claim 42

The Examiner rejected claim 42 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of Raleigh.

Claim 42 has been cancelled and rejection with respect to claim 42 is now moot.

PATENT**F. Claim 49**

The Examiner rejected claim 49 under 35 U.S.C. §103(a) as being unpatentable over Ling in view of Raleigh and further in view of Schmidl et al.

Claim 49 has been cancelled and rejection with respect to claim 49 is now moot.

II. ALLOWED CLAIMS

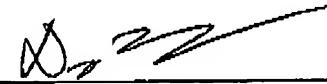
Claims 9 and 10 have been allowed. In addition, Applicants submit that claim 40 includes recitations similar to claim 9 and is therefore also allowable. Further, claim 41 depends from claim 40 and is therefore allowable as well.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at (858)845-0130.

Respectfully submitted,

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